

### Features

- \* High efficiency, Low VF
- \* High current capability
- \* High reliability
- \* High surge current capability
- \* For use in low voltage, high frequency inverter, free wheeling, and polarity protection application.

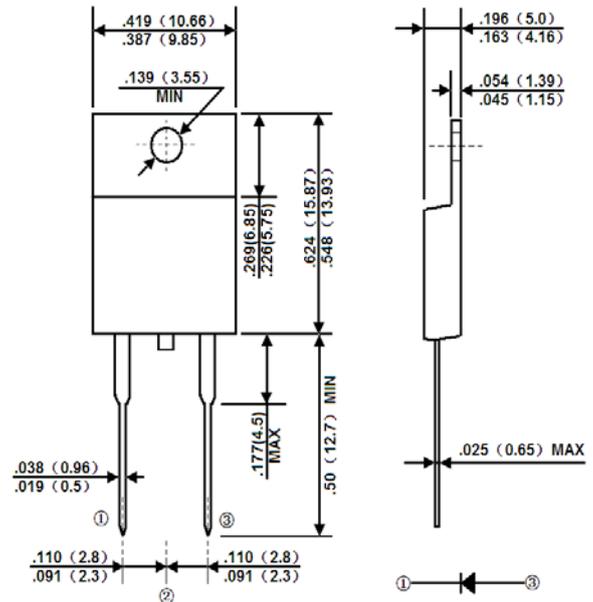


**RoHS**  
COMPLIANT

### Package Outline Dimensions in inches (millimeters)

### Mechanical Data

- \* Cases: TO-220AC Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Pure tin plated leads, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity: As marked
- \* High temperature soldering guaranteed: 260°C/10s/.25", (6.35mm) from case.
- \* Weight: 1.9 grams



### Maximum Ratings and Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	MUR820	MUR840	MUR860	Units
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	200	400	600	V
Maximum RMS Voltage	V <sub>RMS</sub>	140	280	420	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	200	400	600	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	8			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I	100			A
Maximum Instantaneous Forward Voltage (Note 1) @ 8 A	V <sub>F</sub>	0.975	1.3	1.7	V
Maximum Reverse Current	I <sub>R</sub>	5			uA
@ T <sub>A</sub> =25 °C		250			uA
@ T <sub>A</sub> =100 °C					
Maximum Reverse Recovery Time (Note 2)	T <sub>rr</sub>	25	50		ns
Typical Thermal Resistance	R <sub>θJC</sub>	3	2		°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to + 175			°C
Storage Temperature Range	T <sub>STG</sub>	-55 to + 175			°C

Note: 1. Pulse test: t<sub>p</sub> = 300µs, Duty Cycle < 1%.  
 2. Reverse Recovery Test Condition: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A.

## Ratings and Characteristic Curves

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

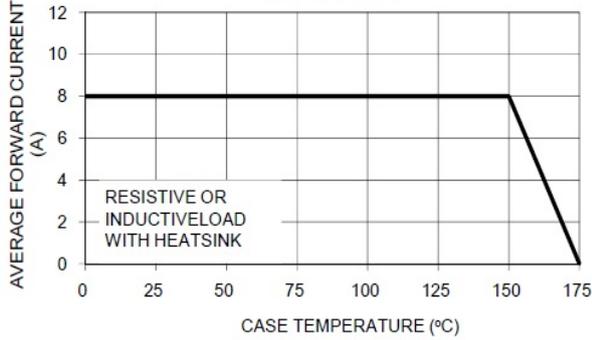


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

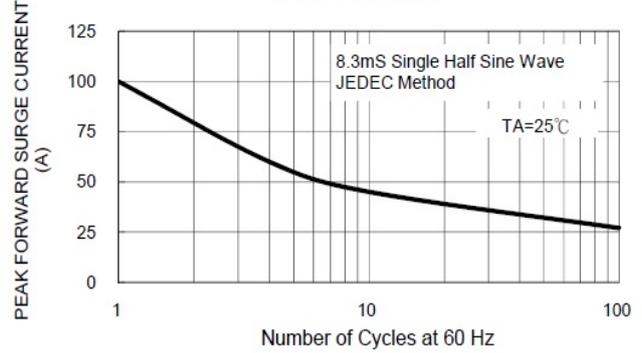


FIG. 3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

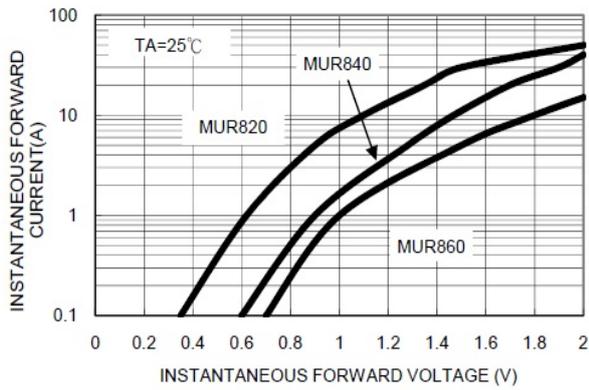


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

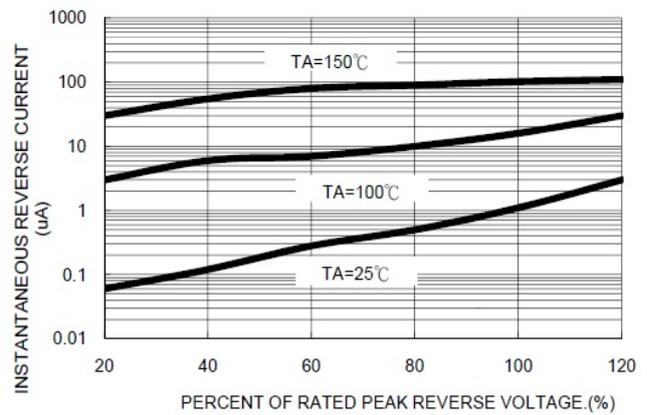


FIG. 5 TYPICAL JUNCTION CAPACITANCE

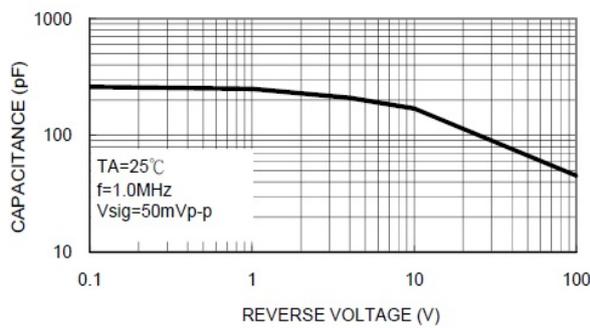
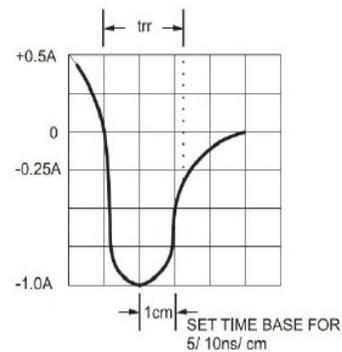
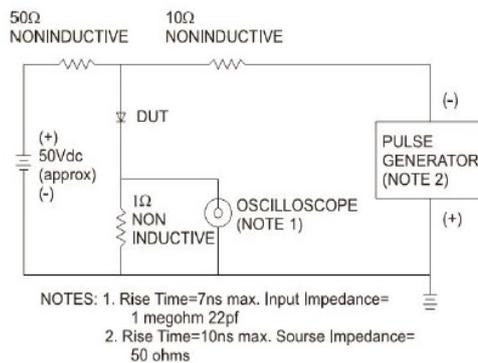


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





**MUR820 - MUR860**  
**8.0AMP. Glass Passivated Super Fast Rectifiers**

**Ordering Information**

Part No.	Package	Packing Code	Packing
MUR820 - MUR860	TO-220AC	T	50pcs/TUBE

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